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Preventive measures in clay and silt slopes used in Sweden. Investigations needed and experiences gained from different methods.

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Sweden has long experience of slope stability problems in clay- and silt sediments due to several large landslide that damaged railway tracks and other infrastructures in the early 20^{th} century. Survey mapping of the landslide hazard in areas with clay and silt sediments has been carried out by commission of the Swedish Rescue Services Agency since 1987.

Before any preventive measures can be suggested and projected the slope stability has to be investigated. Detailed, and in some cases also deepened investigations, should be done in accordance with guidelines given by the Swedish Commission on Slope Stability. In addition to the ordinary data necessary for calculations of the stability the occurrence of quick clay also has to be investigated.

The methods used in Sweden to increase the slope stability may be divided into three categories; changes in geometry, lowering of pore pressures and use of reinforcing elements. Which method to be used depends on the present situation in the slope studied.

The paper will describe the guidelines for detailed and further deepened investigations and experiences from some different methods of increasing the stability of clay- and silt slopes used in Sweden